

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.(Currently Amended) A semiconductor device comprising at least a pixel portion and a driver circuit portion, said semiconductor device comprising a plurality of TFTs and each of TFTs comprising:

a semiconductor layer formed on an insulating surface;

an insulating film formed on the semiconductor layer; and

a gate electrode formed on the insulating film,

wherein the pixel portion comprises at least one p-channel TFT and the driving circuit portion has at least an n-channel TFT and a p-channel TFT,

wherein a gate electrode of the n-channel TFT of the driving circuit portion has a laminate structure with a first conductive layer as a lower layer and a second conductive layer as an upper layer, the first conductive layer having a first width and a second conductive layer having a second width that is narrower than the first width, and

wherein a gate electrode of the p-channel TFT of at least the pixel portion has a laminate structure comprising a first conductive layer and a second conductive layer, an upper surface of the first conductive layer and a lower surface of the second conductive layer having the same width.

2.(Original) A device according to claim 1, wherein edge of the first conductive layer of the n-channel TFT of the driving circuit portion is tapered in section.

3.(Original) A device according to claim 1, wherein the p-channel TFT of the pixel portion

comprises a plurality of channel formation regions.

4.(Original) A device according to claim 1, wherein in the n-channel TFT of the driving circuit portion, the gate electrode has a tapered portion, and the semiconductor layer comprises a channel forming region overlapping the gate electrode and an impurity region partially overlapping the gate electrode.

5.(Original) A device according to claim 4, wherein the impurity region of the n-channel TFT has a region that has an impurity concentration gradient in a range of at least 1×10^{17} to 1×10^{18} atoms/cm³, and the impurity concentration thereof increases as the distance from the channel forming region increases.

6.(Original) A device according to claim 4, wherein the impurity region of the n-channel TFT includes a source region or a drain region.

7.(Original) A device according to claim 1, wherein the p-channel TFT of at least the pixel region has an LDD region between one channel forming region and a source region, or between the channel forming region and a drain region in the semiconductor layer.

8.(Original) A device according to claim 1, wherein the p-channel TFT of at least the pixel region has an offset region between a channel forming region and a source region, or between the channel forming region and a drain region in the semiconductor layer.

9.(Original) A device according to claim 1, wherein a gate wiring line is formed on an insulating

film that covers the gate electrode in the pixel portion, and wherein the gate wiring line and a pixel electrode connected to the impurity region of the p-channel TFT of the pixel portion comprise the same material.

10.(Original) A device according to claim 1, wherein a source wiring line is formed on a first insulating film that covers the gate electrode in the pixel portion, wherein an electrode connected to the impurity region of the of the p-channel TFT of the pixel portion is formed on a second insulating film that covers the source wiring line, and wherein the electrode and a pixel electrode comprise the same material.

11.(Original) A device according to claim 1, wherein the semiconductor device is at least an electric equipment selected from the group consisting of a video camera, a digital camera, a navigation system for automobiles, a personal computer, a portable information terminal, a digital video disc player, or an electronic game machine.

12.(Original) A semiconductor device comprising at least a pixel portion and a driver circuit portion, said semiconductor device comprising a plurality of TFTs and each of TFTs comprising:

a semiconductor layer formed on an insulating surface;

an insulating film formed on the semiconductor layer; and

a gate electrode formed on the insulating film,

wherein the pixel portion comprises at least one p-channel TFT and the driving circuit portion has at least an n-channel TFT and a p-channel TFT,

wherein in the p-channel TFT of the pixel portion, the gate electrode has a tapered portion,

and the semiconductor layer comprises a plurality of channel forming regions overlapping the gate electrode and an impurity region partially overlapping the gate electrode, and

wherein in the n-channel TFT of the driving circuit portion, the gate electrode has a tapered portion, and the semiconductor layer comprises a channel forming region overlapping the gate electrode and an impurity region partially overlapping the gate electrode.

13.(Original) A device according to claim 12, wherein a gate wiring line is formed on an insulating film that covers the gate electrode in the pixel portion, and wherein the gate wiring line and a pixel electrode connected to the impurity region of the p-channel TFT of the pixel portion comprise the same material.

14.(Original) A device according to claim 12, wherein a source wiring line is formed on a first insulating film that covers the gate electrode in the pixel portion, wherein an electrode connected to the impurity region of the of the p-channel TFT of the pixel portion is formed on a second insulating film that covers the source wiring line, and wherein the electrode and a pixel electrode comprise the same material.

15.(Original) A device according to claim 12, wherein the semiconductor device is at least an electric equipment selected from the group consisting of a video camera, a digital camera, a navigation system for automobiles, a personal computer, a portable information terminal, a digital video disc player, or an electronic game machine.

16.(Currently Amended) A semiconductor device comprising at least a pixel portion and a driver

circuit portion, said semiconductor device comprising:

a semiconductor layer formed on an insulating surface, the semiconductor layer comprising at least one channel forming region and impurity regions;

a gate electrode formed adjacent to the semiconductor layer with a gate insulating film interposed therebetween, the gate electrode having a laminate structure with a first conductive layer as a lower layer and a second conductive layer as an upper layer;

an insulating film formed over the gate electrode; and

a gate wiring line formed on an insulating film,

wherein the pixel portion comprises at least one p-channel TFT and the driving circuit portion has at least an n-channel TFT and a p-channel TFT,

wherein, in the gate electrode of the n-channel TFT of the driving circuit portion, the first conductive layer having a first width and the second conductive layer having a second width that is narrower than the first width, and

wherein, in the gate electrode of the p-channel TFT of the pixel portion at least, an upper surface of the first conductive layer and a lower surface of the second conductive layer having the same width, and

wherein the gate wiring line comprises the same material as a pixel electrode connected to the impurity region of the p-channel TFT of the pixel portion ~~comprise the same material.~~

17.(Original) A device according to claim 16, wherein the semiconductor device is at least an electric equipment selected from the group consisting of a video camera, a digital camera, a navigation system for automobiles, a personal computer, a portable information terminal, a digital video disc player, or an electronic game machine.

18.(Currently Amended) A semiconductor device comprising at least a pixel portion and a driver circuit portion, said semiconductor device comprising:

a semiconductor layer formed on an insulating surface, the semiconductor layer comprising at least one channel forming region and impurity regions;

a gate electrode formed adjacent to the semiconductor layer with a gate insulating film interposed therebetween, the gate electrode having a laminate structure with a first conductive layer as a lower layer and a second conductive layer as an upper layer;

a first insulating film formed over the gate electrode;

a source wiring line formed on a first insulating film; and

a second ~~insulating~~ insulating film formed on the source wiring line,

wherein the pixel portion comprises at least one p-channel TFT and the driving circuit portion has at least an n-channel TFT and a p-channel TFT,

wherein, in the gate electrode of the n-channel TFT of the driving circuit portion, the first conductive layer having a first width and the second conductive layer having a second width that is narrower than the first width, and

wherein, in the gate electrode of the p-channel TFT of the pixel portion at least, an upper surface of the first conductive layer and a lower surface of the second conductive layer having the same width, and

wherein the pixel region further comprises an electrode formed on the second insulating film and connected to the impurity region of the of the p-channel TFT of the pixel portion; and a pixel electrode formed on the second insulating film and comprising the same material as said electrode.

19.(Original) A device according to claim 18, wherein the semiconductor device is at least an electric equipment selected from the group consisting of a video camera, a digital camera, a navigation system for automobiles, a personal computer, a portable information terminal, a digital video disc player, or an electronic game machine.

20-36. (Canceled).